

AMENDMENTS TO THE CLAIMS

1. (original) A magnetic encoder for use in a wheel bearing that forms a pulse train by means of a magnetic force and generates a code, wherein the magnetic encoder is formed by radially magnetizing a magnetic rubber ring with alternate S poles and N poles, said magnetic rubber ring is formed by mixing a rubber material and a magnetic powder, characterized by the said magnetic powder being a rare earth magnetic powder.

2. (original) The magnetic encoder as set forth in claim 1, wherein the rare earth magnetic powder comprises neodymium (Nd), iron (Fe) and boron (B).

3. (original) The magnetic encoder as set forth in claim 1, wherein the rare earth magnetic powder comprises samarium (Sm), iron (Fe) and nitrogen (N).

4. (currently amended) The magnetic encoder as set forth in ~~any one of claims~~ claim 1 to 3, wherein a magnetic rubber ring has a thickness in the range of from 0.2 to 2.0 mm.

5. (original) A magnetic encoder for use in a wheel bearing that forms a pulse train by means of a magnetic force and generates a code, wherein the magnetic encoder is formed by radially magnetizing a magnetic rubber ring with alternate S poles and N poles, said magnetic rubber ring is formed by vulcanizing and adhering a magnetic rubber base, in which unvulcanized rubber and rare earth magnetic powder are mixed, to a reinforcement ring.

6. (original) The magnetic encoder as set forth in claim 5, wherein the rare earth magnetic powder comprises neodymium (Nd), iron (Fe) and boron (B).

7. (original) The magnetic encoder as set forth in claim 5, wherein the rare earth magnetic powder comprises samarium (Sm), iron (Fe) and nitrogen (N).

8. (currently amended) The magnetic encoder as set forth in ~~any one of claims~~ claim 5 to 7, wherein a magnetic rubber ring that is vulcanized, molded and adhered to a reinforcement ring has a thickness in the range of from 0.2 to 2.0 mm.

9. (new) The magnetic encoder as set forth in claim 2, wherein a magnetic rubber ring has a thickness in the range of from 0.2 to 2.0 mm.

10. (new) The magnetic encoder as set forth in claim 3, wherein a magnetic rubber ring has a thickness in the range of from 0.2 to 2.0 mm.

11. (new) The magnetic encoder as set forth in claim 6, wherein a magnetic rubber ring that is vulcanized, molded and adhered to a reinforcement ring has a thickness in the range of from 0.2 to 2.0 mm.

12. (new) The magnetic encoder as set forth in claim 7, wherein a magnetic rubber ring that is vulcanized, molded and adhered to a reinforcement ring has a thickness in the range of from 0.2 to 2.0 mm.